#### **ENVIRONMENTAL CHEMISTS**

Date of Report: 08/15/97 Date Received: 08/07/97

Project: Metro Self Monitor PO#M58062

Date Samples Extracted: 08/13/97 Date Extracts Analyzed: 08/14/97

### RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

## Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	Copper	<u>Nickel</u>	<u>Zinc</u>
M58062	0.60	1.4	0.78	0.33
Method Blank	< 0.05	< 0.05	< 0.05	< 0.05

#### **ENVIRONMENTAL CHEMISTS**

Date of Report: 08/15/97 Date Received: 08/07/97

Project: Metro Self Monitor PO#M58062

## QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 708033-01(Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium		0.60	0.58	9	0-20
Copper	mg/L (ppm) mg/L (ppm)		1.4	0	0-20
Nickel	mg/L (ppm)	0.78	N 752 A. 152 T. 152	4	0-20
Zinc	mg/L (ppm)	0.33	0.35	6	0-20

Laboratory Code: 708033-01(Matrix Spike)

							Relative
	Reporting	Spike	Sample	% ]	Recovery	Acceptance	Percent
Analyte:	Units	Level	Result	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	0.60	93	95	80-120	2
Copper	mg/L (ppm)	5	1.4	89	90	80-120	1
Nickel	mg/L (ppm)	10	0.78	92	96	80-120	4
Zinc	mg/L (ppm)	5	0.33	97	99	80-120	2
Chromium Copper Nickel	mg/L (ppm) mg/L (ppm) mg/L (ppm)	5 5	0.60 1.4 0.78	93 89 92	95 90 96	80-120 80-120 80-120	Difference

Laboratory Code: Spike Blank

	tive
Reporting Spike % Recovery Acceptance Perc	ent
Analyte: Units Level MS MSD Criteria Difference	ence
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Chromium mg/L (ppm) 5 100 101 80-120 1	
Copper mg/L (ppm) 5 96 98 80-120 2	
Nickel mg/L (ppm) 10 101 102 80-120 1	
Zinc mg/L (ppm) 5 101 103 80-120 2	

7 Mar. & BRUYA, INC. 1912 Ion. Avenue West Sent. WA 98119-2029 1204) 285-8282

# PT# 708033

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## SAMPLE CHAIN OF CUSTODY

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#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

August 15, 1997

#### **DUPLICATE COPY**

#### **INVOICE #97ACU0815-2**

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor PO#M58062: Results of testing requested by Gerry Thompsonfor material submitted on August 7, 1997.

1 water sample analyzed for		No. of the second secon	
Chromium, Copper, Nickel, and Zinc			
using Method 6010 @ \$65 per sample			\$ 65.00
Amount Due	odejška a bazina	1 88 4882 86	 \$ 65.00

FEDERAL TAX ID #(b) (6)

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

August 15, 1997

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on August 7, 1997 from your Metro Self Monitor PO#M58062 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

keh Enclosures

ACU0815R.DOC